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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,031	07/21/2003	Gerd Frankowsky	10808/101	5111

7590 10/21/2004

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EXAMINER

NGUYEN, DANG T

ART UNIT	PAPER NUMBER
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2824

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/624,031

Applicant(s)

FRANKOWSKY, GERD

Examiner

Dang T Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 22-29 is/are rejected.
7) ☒ Claim(s) 1-21 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 21 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: Search history.

DETAILED ACTION

1. This action is responsive to the following communications: the Application filed on July 21, 2003.
2. Claims 1 - 29 are pending in this case. Claims 1, 8, 15, 22, and 29 are independent claims.

Claim Objections

3. Claim 7 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

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Claim 7 cannot depend ^{from} ~~form~~ itself, suggest claim 7 be amended to depend from claim 6.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22 - 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Oshima et al., Pub. No.: US 2001/0052093 A1 – Pub. Date: Dec. 13, 2001.

Regarding independent claim 22, Figs. 1 and 2 of Oshima disclose a memory device having a register storing failure addresses, said memory device comprising: an input register (Fig. 2 [RG1]) receiving an input fail address (Fig. 1 [AFM]) and an input fail count (Fig. 2 [FCCON]); and a register having a plurality of slots storing fail addresses (Fig. 2 [RG1]) and corresponding fail counts (Fig. 2 [FCCON]); and a plurality of comparators (Fig. 2 [CP1, CP2, CP3]), each said comparator (Fig. 2 [CP1]) being coupled to said input fail count (Fig. 2 [FCCON]) and a fail count of one of said slots of said registers (Fig. 2 [RG1]).

Regarding dependent claim 23, Fig. 1 of Oshima further discloses comprising a clock signal [TG].

Regarding dependent claim 24, Figs. 1 and 2 of Oshima further disclose comprising a switch [LOC] coupled to said clock signal [TG], said switch providing said input fail address [Fig. 1 [AFM]) and said input fail count (Fig. 2 [FCCON]) to a slot of said register (Fig. 1 [RG1]).

Regarding dependent claim 25, Fig. 1 of Oshima discloses wherein said switch [LOC] closes on a falling edge of said clock signal [TG] (page 1 paragraph [0014]).

Regarding dependent claim 26, Figs. 1 and 2 of Oshima further disclose comprising a plurality of register switches (Fig. 2 [RG1, RG2, RG3]), each register switch of said plurality of register switches being coupled to receive an output (Fig. 2 [BBM and PM]) of a comparator of said plurality of comparators (Fig. 2 [CP1, CP2, CP3]).

Regarding dependent claim 27, Oshima discloses wherein each said register switch of said plurality of register switches (Fig. 2 [RG1, RG2, RG3]) being coupled to a slots of said register (Fig. 2 [RG1]).

Regarding dependent claim 28, Oshima discloses wherein said plurality of comparators are coupled said clock signal (Fig. 1 [TG]), each said comparator (Fig. 2 [RG1]) being enabled on a rising edge of said clock signal (page 1 paragraph [0014]).

Regarding independent claim 29, Figs. 1 and 2 of Oshima disclose a memory device having a register storing failure addresses, said memory device comprising: an input register (Fig. 2 [RG1]) receiving an input fail address (Fig. 1 [AFM]) and an input fail count (Fig. 2 [FCCON]); a register having a plurality of slots storing fail addresses (Fig. 2 [RG1]) and corresponding fail counts (Fig. 2 [FCCON]); and a plurality of comparators (Fig. 2 [CP1, CP2, CP3]), each said comparator (Fig. 2 [CP1]) being coupled to said input fail count (Fig. 2 [FCCON]) and a fail count of one of said slots of said registers (Fig. 2 [RG1]); a switch [LOC] coupled to a clock signal (Fig. 1 [TG]), said switch providing said input fail address (Fig. 1 [AFM]) and said input fail count to a slot of said register (Figs. 1 and 2 [202]); and a plurality of register switches (Fig. 2 [RG1, RG2, RG3]), each register switch being coupled to receive an output of a comparator (Fig. 2 [BBM or PM]) of said plurality of comparators (Fig. 2 [CP1, CP2, CP3]).

Allowable Subject Matter

5. Claims 1 – 7, 8 – 14, and 15 - 21 are allowed.
6. The following is an examiner's statement of reasons for allowance:

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With respect to claim 1, in addition to other elements in the respective claim, the prior art fails to teach or suggest “determining if a plurality of cells in an input register has a greater fail count than a fail count of a plurality of cells currently stored in said register; and replacing said address and a corresponding fail count in said register with said address and corresponding fail count in said input register if the fail count of said plurality of cells in said input register is greater than said fail count of said plurality of cells currently stored in said register”.

With respect to claims 8 and 15, in addition to other elements in the respective claim, the prior art fails to teach or suggest “replacing a row address and a corresponding failure count in said register if the corresponding fail count of said new row address is greater than a failure count of said row address stored in said register”.

Prior art

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Oonk	Pub. No.: US 2003/0033561 A1	Pub. Date: Feb. 13, 2003
Morgan et al.	Patent No. 6,072,737	Date of patent: Jun. 6, 2000
Takemoto et al.	Patent No. 5,862,088	Date of Patent: Jan. 19, 1999
Suzuki	Patent No. 5,946,250	Date of Patent: Aug. 31, 1999

Contact Information

8. Any inquiry concerning this communication from the examiner should be directed to Dang Nguyen, who can be reached by telephone at (571) 272-1955. Normal contact

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times are M-F, 8:00 AM - 4:30 PM.

Upon an unsuccessful attempt to contact the examiner, the examiner's supervisor, Richard Elms, may be reached at (571) 272-1869.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, whose telephone number is (703) 305-3900. The faxed phone number for organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the Status of an application may be obtained from the patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or EBC@uspto.gov.

Dang Nguyen 10/5/2004

A handwritten signature in black ink, appearing to read 'Richard Elms', with a date stamp '10/11/04' written over the bottom right portion of the signature.

RICHARD ELMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800